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PATENT

Case Docket No. SAEG106.001APC  
Date: May 21, 2002



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) : Nishino, et al.  
Appl. No. : 10/070,048  
Filed : February 22, 2002  
For : METHOD FOR ABSOLUTE  
ASYMMETRIC SYNTHESIS  
Examiner : Unknown  
Group Art Unit : Unknown

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May 21, 2002

(Date)

  
Katsuhiro Arai, Reg. No. 43,315

TRANSMITTAL LETTER


United States Patent and Trademark Office  
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Arlington, VA 22202

ATTENTION: APPLICATION BRANCH

Dear Sir:

Enclosed for filing in the above-identified application are:

- (X) An Information Disclosure Statement; PTO Form 1449 with twelve (12) references.
- (X) A copy of International Search Report (PCT/ISA/210).
- (X) The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment, to Account No. 11-1410.
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Katsuhiro Arai  
Registration No. 43,315  
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INFORMATION DISCLOSURE STATEMENT

United States Patent and Trademark Office  
P.O. Box 2327  
Arlington, VA 22202

Dear Sir:

Enclosed is form PTO-1449 listing references that are also enclosed. As indicated in the accompanying Form PCT/ISA/210, all of the listed references were cited in the International Search Report in the international phase of the present U.S. national phase application. The document "First Reversible Asymmetric Photoisomerization with Circularly Polarized Light: Absolute Asymmetric Synthesis of Norbornadiene and Quadracyclane" is relevant as being cited in Form PCT/ISA/210, however, no English translation is available. Although these references already of record during the International Phase of the application, they are submitted in the present Information Disclosure Statement for the convenience of the Examiner and to endure that the references are listed on the cover of any patent issued on the present application. This Information Disclosure Statement is being filed within three months of the filing date of this application or upon filing if this is a CPA or RCE, and no fee is required in accordance with 37 C.F.R. § 1.97(b)(1), (b)(2), or (b)(4).

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: May 21, 2002

By: 

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FORM PTO-1449

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PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.  
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10/070,048INFORMATION DISCLOSURE STATEMENT  
BY APPLICANT

USE SEVERAL SHEETS IF NECESSARY)

APPLICANT  
Nishino, et al.FILING DATE  
February 22, 2002GROUP  
Unknown

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE)

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
	57-147577	09/11/82	Japan			Abstract	
	EP 0 285 175	10/05/88	Europe				
	EP 0 658 373	06/21/95	Europe				
	09-077691	03/25/97	Japan			Abstract	
	2000-86588	03/28/00	Japan			Abstract	

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## OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)

	1.	Tran, C.D., et al., "Stereoselective Energy Transfer Induced by Circularly Polarized Light," Study Phys. Theory Chem. Vol.7 p.53-66, 1979
	2.	Miesen, F.W.A.M., et al., "Synthesis of Optically Pure 3-( $\pi\pi^*$ )-(1S,6R)-Bicyclo[4.4.0]decane-3,8-dione, a Molecule Which is Chiral in the Excited State Only," J.Am. Chem.Soc., Vol.116, No.12, p.5129-5133, 1994
	3.	Inoue, Y., et al., "Hikari de Fusei Gousei ni semaru," Sakigake Kenkyu 21 Kenkyu Houkokukai, Hikari to Busshitsu Kouen Youshishuu 1994, p.42-48, 1995
	4.	Salam, A., et al., "On enantiomeric excess obtained from racemic mixtures by using circularly polarized pulsed lasers of varying durations," Chem.Phys. Vol.228, No. 1, P.115-128, 1998
	5.	Burnham, K.S., et al., "A Search for Chiral Photochromic Optical Triggers for Liquid Crystals: Photoracemization of 1, 1-Binaphthylpyran through a Transient Biaryl Quinone Methide Intermediate," J.Am.Chem.Soc., Vol.120, No. 48, p.12619-12625, 1998
	6.	Inoue, Y., et al., "Pressure and Temperature control of Product Chirality in Asymmetric Photochemistry. Enantiodifferentiating Photoisomerization of Cyclooctene Sensitized by Chiral Benzenepolycarboxylates," J.Am.Chem.Soc., Vol.120, No. 41, p.10687-10696, 1998
	7.	Nishino, H., et al., "First Reversible Asymmetric Photoisomerization with Circularly Polarized Light: Absolute Asymmetric Synthesis of Norbornadiene and Quadricyclane," Proceedings II of 1999 76 <sup>th</sup> National Meeting of Chemical Society of Japan, p.1157, 1C741, March 15, 1999

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DATE CONSIDERED

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